

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Please amend claims 6, 10, 12, and 14 and add new claims 99-104. Please cancel non-elected claims 1 and 15-98 and claims 2-5, 7, and 11.

Listing of Claims:

1. – 5. (Cancelled)

6. (Currently Amended) An isolated polynucleotide that encodes a dual specificity phosphatase-15 (DSP-15) substrate trapping mutant polypeptide according to claim 4 in which a DSP-15 polypeptide comprising an amino acid sequence set forth in SEQ ID NO:2 has a substitution of an amino acid residue selected from the group consisting of (i) the aspartic acid residue at position 382 of SEQ ID NO:2 and (ii) the cysteine residue at position 413 of SEQ ID NO:2, wherein the DSP-15 substrate trapping mutant polypeptide retains the ability to bind a DSP-15 substrate, and wherein the ability of the DSP-15 substrate trapping mutant polypeptide to dephosphorylate the DSP-15 substrate is reduced relative to the DSP-15 polypeptide.

7. (Cancelled)

8. (Original) An expression vector comprising a polynucleotide according to claim 6.

9. (Original) A host cell transformed or transfected with an expression vector according to claim 8.

10. (Currently Amended) An antisense polynucleotide comprising a polynucleotide that is complementary to a polynucleotide according to claim 6.

11. (Cancelled)

12. (Currently Amended) An expression vector comprising a polynucleotide according to claim 10 ~~or claim 11~~.

13. (Original) A host cell transformed or transfected with an expression vector according to claim 12.

14. (Currently Amended) A method of producing a dual specificity phosphatase-15 (DSP-15) substrate trapping mutant polypeptide, comprising the steps of:

- (a) culturing a host cell according to claim 9 under conditions that permit expression of the DSP-15 substrate trapping mutant polypeptide; and
- (b) isolating DSP-15 substrate trapping mutant polypeptide from the host cell culture.

15. – 98. (Cancelled)

99. (New) An isolated polynucleotide comprising a nucleotide sequence at least 90% identical to SEQ ID NO:1, wherein the polynucleotide encodes a dual specificity phosphatase-15 (DSP-15) substrate trapping mutant polypeptide in which a DSP-15 polypeptide comprising the sequence set forth in SEQ ID NO:2 has a substitution of an amino acid residue selected from the group consisting of (i) the aspartic acid residue at position 382 of SEQ ID NO:2 and (ii) the cysteine residue at position 413 of SEQ ID NO:2, wherein the DSP-15 substrate trapping mutant polypeptide retains the ability to bind a DSP-15 substrate, and wherein the ability of the DSP-15 substrate trapping mutant polypeptide to dephosphorylate the DSP-15 substrate is reduced relative to the DSP-15 polypeptide.

100. (New) The polynucleotide according to either claim 6 or claim 99, wherein the polynucleotide encodes a DSP-15 substrate trapping mutant polypeptide that contains a substitution at position 382 of SEQ ID NO:2.

101. (New) The polynucleotide according to either claim 6 or claim 99, wherein the polynucleotide encodes a DSP-15 substrate trapping mutant polypeptide that contains a substitution at position 413 of SEQ ID NO:2.

102. (New) The The polynucleotide according to claim 100 wherein the substitution at position 382 of SEQ ID NO:2 is selected from the group consisting of alanine, valine, leucine, isoleucine, proline, phenylalanine, tryptophan, asparagine, glutamine, lysine, arginine, and histidine.

103. (New) The polynucleotide according to claim 100 wherein the substitution at position 382 of SEQ ID NO:2 is an alanine residue.

104. (New) The polynucleotide according to claim 101 wherein the substitution at position 413 is either a serine or an alanine residue.